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10/057,255	01/24/2002	Masashi Hamada	1232-4812	2744
27123	7590	08/28/2006	EXAMINER SERRAO, RANODHI N	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			ART UNIT 2141	PAPER NUMBER

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,255

Applicant(s)

HAMADA, MASASHI

Examiner

Ranodhi Serrao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-10, 12-15, 17-19, 22-24, 26-35, 38, 61 and 84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-10, 12-15, 17-19, 22-24, 26-35, 38, 61, and 84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed 13 July 2006, with respect to the rejection(s) of claim(s) 1, 4-10, 12-15, 17-19, 22-24, 26-35, 38, 61, and 84 under 35 U.S.C. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference(s). See rejections below.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon (5,799,147) and Yu (5,764,903).
4. As per claim 1, Shannon teaches a data management method using a network system which includes a server, a client terminal and a plurality of data servers, comprising: the reception step of making the server receive a user's data storage request and data to be stored from the client terminal (see Shannon, col. 4, line 65-col. 5, line 16); the selected data servers including a data server located in an area which is different from an area of user's address registered by the user of the client terminal (see Shannon, col. 7, lines 1-5), and a data server located in an area with a low disaster rate of occurrence (see Shannon, col. 3, lines 38-61: wherein any remote physical location can serve the purpose of an area with a low disaster rate of occurrence since the

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remote location is not subject to the same physical conditions or hazards). But fails to teach a select step of making the server automatically select data servers for storing the data from the plurality of data servers; and a storage step of making the server send the data to the selected data servers, and store the data in the selected data servers.

However, Yu teaches a select step of making the server automatically select data servers for storing the data from the plurality of data servers (see Yu, col. 5, lines 25-35); and a storage step of making the server send the data to the selected data servers, and store the data in the selected data servers (see Yu, col. 5, lines 36-49). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Shannon to a select step of making the server automatically select data servers for storing the data from the plurality of data servers; and a storage step of making the server send the data to the selected data servers, and store the data in the selected data servers in order to provide multiple methods of synchronous and asynchronous disk mirroring by using a very low overhead that results in high performance and availability (see Yu, abstract).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon and Yu as applied to claim 1 above, and further in view of Day et al. (2002/0095487) and Satomi et al. (6,347,384). Shannon and Yu teach the mentioned limitations of claim 1 above but fail to teach a method further comprising: a step of making the server acquire disaster information from a disaster information database that provides disaster information, and search for the area with a low disaster rate of occurrence on the basis

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of the acquired disaster information for selecting the server in the select step. However, Satomi et al. teaches a method further comprising: a step of making the server acquire disaster information from a disaster information database that provides disaster information (see Satomi et al., column 2, lines 28-50). And Day et al. teaches search for a server for selecting the server in the select step (see Day et al., ¶ 54). It would have been obvious to one having ordinary skill in the art at the time of the invention to combine searching for a server with searching for the area with a low disaster rate of occurrence on the basis of the acquired disaster information since Day et al. teaches searching for a server and Shannon teaches a data server located in an area with a low disaster rate of occurrence. Furthermore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Shannon and Yu to a method further comprising: a step of making the server acquire disaster information from a disaster information database that provides disaster information, and search for the area with a low disaster rate of occurrence on the basis of the acquired disaster information for selecting the server in the select step in order to provide a system that is capable of rapidly and effectively making and carrying out a plan for dealing with a disaster when it occurs (see Satomi et al., col. 1, lines 45-48).

6. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu and Shannon as applied to claim 1 above, and further in view of and Satomi et al.

7. As per claims 7 and 9, the above-mentioned motivation of claim 4 applies fully in order to combine Yu, Shannon, and Satomi et al.

8. As per claim 7, Yu, Satomi et al., and Shannon teach a method further comprising: a step of making the server send to the client terminal addresses of the data servers that store the data (see Satomi et al., column 2, lines 51-62).

9. As per claim 9, Yu, Shannon, and Satomi et al. teach a method wherein information of the user's address is pre-stored in the server (see Satomi et al., column 2, lines 51-62 and column 5, lines 14-39).

10. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon and Yu as applied to claim 1 above, and further in view of Beeler, Jr. (5,189,020).

11. As per claim 5, Shannon and Yu teach the mentioned limitations of claim 1 above but fail to teach a method further comprising: a step of making the server encrypt the data, and wherein the storage step includes the step of: making the server send the data encrypted by different methods to the respective data servers, and store the data in the data servers. However, Beeler, Jr. teaches a method further comprising: a step of making the server encrypt the data, and wherein the storage step includes the step of: making the server send the data encrypted by different methods to the respective data servers, and store the data in the data servers (see Beeler, Jr., column 17, lines 10-21). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Shannon and Yu to a method further comprising: a step of making the server encrypt the data, and wherein the storage step includes the step of: making the server send the data encrypted by different methods to the respective data servers,

and store the data in the data servers in order to prevent replicated data from being intercepted and compromised (see Beeler, Jr., col. 7, lines 34-41).

12. As per claim 6, the above-mentioned motivation of claim 5 applies fully in order to combine Yu, Shannon, and Beeler, Jr.

13. As per claim 6, Beeler, Jr., Yu, and Shannon teach the step of making the server periodically acquire the encrypted data from the data servers (see Beeler, Jr., column 17, lines 10-21); the step of making the server decrypt the acquired data; and the step of making the server compare the decrypted data (see Beeler, Jr., column 18, lines 7-19).

14. Claims 10 and 12-14 are rejected by Yu and Shannon accordingly as per claim 1 above.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon, Yu, and Beeler, Jr. as applied to claims 1 and 5 above, and further in view of Satomi et al. and Bowman-Amuah (6,289,382). Beeler Jr. teaches the mentioned limitations of the above claims but fails to teach a step of making the server send to the client terminal addresses of the data servers that store the data, and a key used to decrypt the encrypted data. Satomi et al. teaches the step of making the server send to the client terminal addresses of the data servers that store the data (column 2, lines 51-62). And Bowman-Amuah teaches a key used to decrypt the encrypted data (column 79, lines 39-41). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add the step of making the server

send to the client terminal addresses of the data servers that store the data in order to meet the predefined priority of communication networks over which to reach a desired server. And a key used to decrypt the encrypted data in order to prevent unauthorized interception of data.

16. Claims 15, 17-19, 23-28, 33-35, 38, 61, and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeler, Jr., Yu, Shannon, and Byrd et al. (6,069,941).

17. As per claims 15, 38, 61, and 84 Yu and Shannon teach the mentioned limitations of claim 12 above, but fail to teach a server, wherein said select means automatically selects the data server based on the user's service subscription qualification level. However, Byrd et al. teaches a server, wherein said select means automatically selects the data server based on the user's service subscription qualification level (see Byrd et al., col. 5, lines 26-52). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Yu and Shannon to a server, wherein said select means automatically selects the data server based on the user's service subscription qualification level in order to connect a qualified subscriber to services while monitoring the amount of service being supplied (see Byrd et al., col. 2, lines 19-35).

18. As per claim 17, Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Shannon, Yu, and Byrd et al. fail to teach wherein said sending means encrypts the data using an encryption method corresponding to the data

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servers selected by said select means. Beeler, Jr. however teaches wherein said sending means encrypts the data using an encryption method corresponding to the data servers selected by said select means (see Beeler, Jr., column 17, lines 10-21). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said sending means encrypts the data using an encryption method corresponding to the data servers selected by said select means in order to prevent replicated data from being intercepted and compromised.

19. As per claim 18, Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Beeler, Jr., Yu, and Shannon fail to teach wherein the service subscription qualification level is determined based on a subscription fee for a service. Byrd et al. however teaches wherein the service subscription qualification level is determined based on a subscription fee for a service (see Byrd et al., column 2, lines 59-65). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein the service subscription qualification level is determined based on a subscription fee for a service in order to monitor the amount of service being supplied to a subscriber.

20. As per claim 19, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Beeler, Jr., Yu, and Shannon fail to teach wherein the service subscription qualification level is determined based on a service subscription term. Byrd et al. however teaches the service subscription qualification level is determined based on a service subscription term (see Byrd et al., column 2, lines 59-65). It would have been obvious to one having ordinary skill in the art at the

time of the invention to modify the above claim to add the service subscription qualification level is determined based on a service subscription term in order to monitor the amount of service being supplied to a subscriber.

21. As per claim 23, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Beeler, Jr., Yu, and Shannon fail to teach wherein when the user's service subscription qualification level has changed, said select means re-selects the data servers, and said sending means sends the data again to the at least one data server re-selected by said select means. Byrd et al. however teaches wherein when the user's service subscription qualification level has changed, said select means re-selects the data server, (see Byrd et al., column 4, lines 27-48), and said sending means sends the data again to the data servers re-selected by said select means (see Byrd et al., column 4, lines 49-58). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein when the user's service subscription qualification level has changed, said select means re-selects the servers, and said sending means sends the data again to the data servers re-selected by said select means in order to qualify the subscriber in accordance with the subscriber's telephone number.

22. As per claim 24, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Beeler, Jr., Yu, and Shannon fail to teach wherein said select means re-selects the data servers in accordance with a change in disaster information, and said sending means sends the data request again to the data servers re-selected by said select means. Byrd et al. however teaches wherein said

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select means re-selects the data servers in accordance with a change in disaster information, (see Byrd et al., column 4, lines 27-48), and said sending means sends the data again to the data servers re-selected by said select means (see Byrd et al., column 4, lines 49-58). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said select means re-selects the data servers in accordance with a change in disaster information, and said sending means sends the data again to the data servers re-selected by said select means in order to qualify the subscriber in accordance with the subscriber's telephone number.

23. As per claim 26, Beeler, Jr., Shannon, Yu, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Byrd et al., Yu, and Shannon fail to teach checking means for checking authenticity of the data stored in the data server. Beeler, Jr. however teaches checking means for checking authenticity of the data stored in the data server (see Beeler, Jr., column 17, lines 9-21: wherein compression and encryption serves the function of authenticity). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add checking means for checking authenticity of the data stored in the data server in order to prevent replicated data from being intercepted and compromised.

24. As per claim 27, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12, 15 and 26 above but Byrd et al., Yu, and Shannon fail to teach wherein said checking means checks authenticity by comparing data which are associated with an identical storage request and are stored in the data servers. Beeler,

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Jr. however teaches wherein said checking means checks authenticity by comparing data which are associated with an identical storage request and are stored in the data servers (see Beeler, Jr., column 18, lines 7-19). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said checking means checks authenticity by comparing data which are associated with an identical storage request and are stored in the data servers in order to prevent replicated data from being intercepted and compromised.

25. As per claim 28, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12, 15, and 26 above but Yu, Shannon, and Byrd et al. fail to teach wherein said checking means checks if data becomes fraudulent due to a memory medium. Beeler, Jr. however teaches wherein said checking means checks if data becomes fraudulent due to a memory medium (see Beeler, Jr., column 7, lines 34-41: wherein replication data is transmitted through a memory medium). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said checking means checks if data becomes fraudulent due to a memory medium in order to prevent replicated data from being intercepted and compromised.

26. As per claim 33, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but Yu, Shannon, and Byrd et al. fail to teach notify means for sending at least various storage condition data associated with a data storage process to a client terminal that issued the storage request. Beeler, Jr. however teaches notify means for sending at least various storage condition data associated with

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a data storage process to a client terminal that issued the storage request (see Beeler, Jr., column 10, lines 20-31: wherein broadcasting a message serves the function of notify means). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add notify means for sending at least various storage condition data associated with a data storage process to a client terminal that issued the storage request in order to determine if the node is configured as a target server.

27. As per claim 34, Beeler, Jr., Shannon, Yu, and Byrd et al. teach the mentioned limitations of claims 12, 15 and 33 above but Shannon, Yu, and Byrd et al. fail to teach wherein said notify means sends encryption algorithm and key data in addition to storage location data of the data associated with the storage request as the storage condition data. Beeler, Jr. however teaches wherein said notify means sends encryption algorithm and key data in addition to storage location data of the data associated with the storage request as the storage condition data (see Beeler, Jr., column 17, lines 9-21). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said notify means sends encryption algorithm and key data in addition to storage location data of the data associated with the storage request as the storage condition data in order to replicate the operation described in each packet to the local storage media on target server and restore data to source server when necessary.

28. As per claim 35, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12, 15, and 33 above but Byrd et al., Yu, and Shannon fail to teach

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wherein the client device includes storage means for storing at least the storage condition data sent from said notify means. Beeler, Jr. however teaches wherein the client device includes storage means for storing at least the storage condition data sent from said notify means (see Beeler, Jr., column 10, line 65-column 11, line 10). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein the client device includes storage means for storing at least the storage condition data sent from said notify means in order to replicate the operation described in each packet to the local storage media on target server and restore data to source server when necessary.

29. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beeler, Jr., Shannon, Yu, Byrd et al., and Weinman, Jr. (2001/0047412). Beeler, Jr., Shannon, Yu, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above and furthermore Byrd et al. teaches servers corresponding to the service subscription qualification level of the user who issued the storage request (see Byrd et al., col. 5, lines 26-52). But Beeler, Jr., Byrd et al., Yu, and Shannon fail to teach wherein said select means selects a data server with a lowest suffering risk from the plurality of data servers and a server with a lowest suffering risk of the data servers in a different area from the area of user's address registered by the user who issued the storage request. However Weinman, Jr. teaches wherein said select means selects a data server with a lowest suffering risk from the plurality of data servers (see Weinman, Jr., ¶ 24) and a server with a lowest suffering risk of the data servers in a different area from the area of

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user's address registered by the user who issued the storage request (see Weinman, Jr., ¶ 43). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Beeler, Jr., Shannon, Yu, and Byrd et al. to wherein said select means selects a data server with a lowest suffering risk from the plurality of data servers and a server with a lowest suffering risk of the data servers in a different area from the area of user's address registered by the user who issued the storage request in order to mirror and relay computer data to improve continuity of data by maximizing the distance between two copies of the data in synchronous mode, zero data loss environments (see Weinman, Jr., abstract).

30. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beeler, Jr., Shannon, Yu, and Byrd et al. as applied to claims 12, 15, and 26 above, and further in view of Bowman-Amuah (6,289,382).

31. As per claim 29, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12, 15, and 26 above but fail to teach wherein said checking means checks if data becomes fraudulent due to tampering of data. Bowman-Amuah however teaches wherein said checking means checks if data becomes fraudulent due to tampering of data (column 128, line 62-column 129, line 10). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein said checking means checks if data becomes fraudulent due to tampering of data in order to fulfill distinct business services through well-defined interfaces.

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32. As per claim 30, Beeler, Jr., Yu, Shannon, and Byrd et al. teach the mentioned limitations of claims 12, 15, 26, and 29 above but fail to teach wherein when said checking means determines that the data becomes fraudulent due to tampering of data, said checking means sends a message indicating this to a client terminal that issued the storage request of the data. Bowman-Amuah however teaches wherein when said checking means determines that the data becomes fraudulent due to tampering of data, said checking means sends a message indicating this to a client terminal that issued the storage request of the data (column 128, line 62-column 129, line 10). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add wherein when said checking means determines that the data becomes fraudulent due to tampering of data, said checking means sends a message indicating this to a client terminal that issued the storage request of the data in order to fulfill distinct business services through well-defined interfaces.

33. As per claim 31, Beeler, Jr., Shannon, Yu, and Byrd et al. teach the mentioned limitations of claims 12 and 15 above but fail to teach authentication means for authenticating if the user who issued the storage request is a member who subscribes to the service, and accepts only the storage request from the user authenticated by said authentication means. Bowman-Amuah however teaches authentication means for authenticating if the user who issued the storage request is a member who subscribes to the service, and accepts only the storage request from the user authenticated by said authentication means (column 79, lines 4-13). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add

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authentication means for authenticating if the user who issued the storage request is a member who subscribes to the service, and accepts only the storage request from the user authenticated by said authentication means in order to prevent unauthorized interception of data.

34. As per claim 32, Beeler, Jr., Shannon, Yu, and Byrd et al. teach the mentioned limitations of claims, 12 and 15 above but fail to teach authentication means for checking authenticity of the data server selected by said select means, and said sending means sends data in only the data servers authenticated by said authentication means. Bowman-Amuah however teaches authentication means for checking authenticity of the data server selected by said select means, and said sending means sends data in only the data servers authenticated by said authentication means (column 81, lines 47-67). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the above claim to add authentication means for checking authenticity of the data server selected by said select means, and said sending means sends data in only the data servers authenticated by said authentication means in order to verify network access requests by validating that users are who they claim to be.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER